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Applicants: Gotwals, et al.  
Application No.: 09/423,018  
Filed: October 12, 2000  
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Docket No. A018 US



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Gotwals, et al.  
Application No.: 09/423,018      Group Art Unit: 1646  
Filed: October 12, 2000      Examiner: Janet L. Andres Ph.D.  
Title: TYPE II TGF-BETA RECEPTOR/IMMUNOGLOBULIN CONSTANT  
REGION FUSION PROTEINS

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

DECLARATION OF RICHARD CATE, Ph. D

I, Richard Cate, being duly sworn, depose and state as follows.

1. I am an Applicant named in the above-identified patent application. I have reviewed and am familiar with the contents of the April 20, 2004 Office Action issued in connection with the patent application. I have also reviewed the *Lin* and *Jacobs* references which have been cited by the Examiner in the April 20, 2004 Office Action.
2. In my opinion, as of April 18, 1997, those of ordinary skill in the art would not have been motivated to combine *Lin* and *Jacobs* in the manner suggested by the Examiner. Nor would skilled artisans at the time have had a reasonable expectation that combining *Lin* and *Jacobs* as suggested by the Examiner would yield functional fusion proteins within the scope of my invention.
3. As of April 18, 1997, there were five known mammalian type II receptors of the TGF- $\beta$  receptor family: TGF- $\beta$ RII (which binds the ligand TGF- $\beta$  and is also referred to as T $\beta$ R-II); ActR-II and ActR-IIB (which bind the ligands activin, inhibin, and some BMPs); BMPR-II (which binds some BMPs); and AMH-RII (which binds AMH (MIS)).  
*See Josso and di Clemente, Current Opinion in Genetics and Development, Vol. 7, pp. 371-377(June, 1997)(copy attached).*